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HORMONAL STATUS OF WOMEN WITH BENIGN BREAST DISEASES IN DIFFERENT TYPES OF GYNECOLOGICAL PATHOLOGY.

ANNOTATION

According to the World Health Organization, the most widespread localization of tumors in the structure of morbidity in women is breast cancer, which makes 18% of the total number of malignant tumors. To reduce the sick rate, it is important to study various ways of impact on the precancerous processes in the breast. Mastopathy (fibrous-cystic disease) is a dormriconal hyperplastic process in the breast, characterized by a wide range of proliferative and regressive changes in breast tissues with an abnormal relationship of epithelial components and connecting tissues. Its development is associated with violation of the balance of estrogen.

The interest of oncologists on various forms of mastopathy and other benign tumors of the breast is primarily due to the fact that they relate to prematubolic diseases, as a result of which breast cancer can develop. Despite the fact that mastopathy is not an obligatory precancer, in this category of patients the development of cancer is 3-5 times higher than in the overall population, and during proliferative forms, risk increases at 25-30 times.

Key words: mammology, diagnostics, benign breast diseases.

On the basis of morphometric and immunohistochemical studies, the features of vascularization of mammary gland tissues in various forms of the

fibrocystic disease were determined. It was found that with atypical epithelial hyperplasia, an increase in angiogenesis is observed, as evidenced by an increase in the relative area of blood vessels and the expression in the tissues of the mammary glands of factor CD31. It has been shown that the degree of parenchymal vascularization directly correlates with the proliferative activity of the epithelium and the presence of its cribrous proliferates. It was revealed that the development of proliferative forms of fibrocystic disease is accompanied by a change in the content of estrogen receptors in the tissues of the mammary glands, the activity of proliferation, and apoptosis of the epithelium. Revealed the heterogeneity of its molecular biological properties in proliferative and nonproliferative forms of the disease [10, 20].

A proposition has been put forward that the activation of epithelial apoptosis in the proliferative form of the disease, caused by a violation of antiapoptotic mechanisms with the participation of the Mc1-1 factor, has an adaptive character in response to an increase in mitotic activity. It has been shown that in patients with fibrocystic disease, the physiological mechanism of regulation of the expression of estrogen receptors is preserved, which consists in the presence of an inverse relationship between their content in the epithelium of the mammary glands and the concentration of estradiol in the blood [5, 21].

Features of the hormonal status of patients with benign diseases of the mammary glands in various types of gynecological pathology.

On the basis of a comprehensive clinical and morphological examination of the mammary glands, it was shown for the first time that uterine myoma is a clinical marker of proliferative forms of fibrocystic mastopathy. The substantiation of bilateral oophorectomy in patients with uterine myoma of perimenopausal age with a high relative risk of developing breast cancer to reduce the proliferative activity of the mammary gland epithelium was carried out. The use of invasive diagnostics of the state of the mammary gland in patients with uterine myoma with an increased 5-year-old relative risk of developing breast cancer without the presence of focal formation in it has been substantiated. As a method of invasive

diagnostics of the proliferative process, multifocal trephine biopsy of the breast under echographic control was proposed. The sensitivity and specificity of this method in the diagnosis of proliferative forms of fibrocystic mastopathy have been determined [11].

The author [15] carried out a comparative characteristic of the capabilities of analog and digital mammography in the screening examination of women over 40 years old. The high resolution of digital mammography made it possible to recommend it as the main method for early diagnosis of breast diseases and grouped microcalcification.

A direct correlation was shown between gynecological diseases and breast pathology. The principles of creating a therapeutic and diagnostic algorithm for benign diseases of the mammary glands have been determined. The 100% diagnostic efficiency of histological verification of mammary gland tumor processes with the help of a thick-needle vacuum biopsy (Mammotom) was determined, which makes it possible to abandon the "open" intraoperative express biopsy. A new method has been developed for the removal of recurrent cysts using a large-needle vacuum biopsy. With the help of pharmacoeconomic analysis, it was proved that the model of using a large-needle vacuum drill-biopsy under ultrasound control in comparison with traditional surgical treatment of benign tumors has advantages in terms of cost and effectiveness [5].

The clinical significance of vitamin D in the course and progression of mastopathy in women.

In this study, the author of [6] for the first time developed the concept of the relationship of vitamin D with benign breast diseases in women, revealed the clinical features of the diffuse form of mastopathy and fibroadenoma of the mammary glands, established the fact of a consistently increased level of prolactin in women with benign mammary gland diseases compared with healthy women, not decreasing with the aging of a woman, and a significant decrease in the content of progesterone in the blood in patients under 30 years of age with a diffuse form of mastopathy. It was established for the first time that patients with diffuse

mastopathy and fibroadenoma of the mammary glands are characterized by a high frequency of vitamin D deficiency and deficiency, which is not related to the level of insolation and does not depend on the age criterion.

It has been shown that a low level of vitamin D in patients with diffuse mastopathy and breast fibroadenoma has an inverse correlation with the severity of pain syndrome, prolactin level, and radiological density of the mammary gland. For the first time, a relationship was established between low levels of vitamin D and the carriage of the TT genotype of the Fok 1 polymorphism (rs2228570) of the VD receptor and the AC genotype of the GC polymorphism (rs2282679) of the gene encoding the vitamin D binding protein in patients with diffuse mastopathy. It has been shown for the first time that polymorphisms of the Fok 1 (rs2228570) VDR, CYP2R1 (rs2060793) and GC (rs2282679) genes do not lead to a genetic 6 predisposition to diffuse mastopathy and mammary fibroadenoma. For the first time, the high efficiency of vitamin D treatment of diffuse mastopathy has been proven, which consists in reducing pain syndrome, reducing the X-ray density of the mammary glands, normalizing the ultrasound picture of the disease, and decreasing the level of prolactin in the blood [7,13,14].

Radon and interference therapy in the rehabilitation of patients with nodular forms of mastopathy.

The author [4] for the first time investigated the clinical and physiological substantiation of the use of interference currents by the method of electric sleep in isolation and in combination with radon baths in the correction of neuroendocrine disorders in the postoperative period in women who underwent sectoral resection of the mammary glands. It was found that in the postoperative period, women with nodular forms of mastopathy have pronounced psychoemotional and vegetative-vascular disorders, dysfunction of the hypothalamic-pituitary-ovarian-adrenal system, pathological changes in the hemodynamics of the pelvic organs.

The role of functional disorders of subcortical structures in the genesis of neuroendocrine dysfunction in patients with nodular forms of mastopathy is shown. For the first time, the direct and long-term effect of the combined use of

radon and interference therapy and, separately, interference therapy on the psychoemotional state, vegetative support, the state of bioelectrical activity of the brain, hemodynamics of the pelvic organs, and the hypothalamic-pituitary-ovarian-adrenal system in the postoperative period of the resection of women, mammary glands. It was found that the use of interference therapy by the electrosleep method levels the dysfunction of the mesodiencephalic structures, which is accompanied by an improvement in the functional state of the central links of the reproductive homeostat, normalization of estradiol-progesterone relations, gonadotropic and prolactin-synthesizing functions of the pituitary gland [2, 19].

Features of the hormonal status of patients with benign diseases of the mammary glands in various gynecological diseases.

The author [18] for the first time carried out a long-term observation of women of reproductive age with nodular PCB (formations in the mammary glands no more than 2 cm), revealed the peculiarities of the course of the disease in gynecological patients. It has been shown that with nodular PCB, combined with uterine myoma and/or internal endometriosis, the frequency of proliferative processes in the nodules of the mammary glands is significantly higher (14.7%) than in patients without gynecological pathology (4%), and therefore this group patients should be classified as a high-risk group for the formation of a proliferative phenotype.

Hormonal disorders characteristic of these patients were revealed, the main of which are hyperestrogenemia and hypoprolactinemia, progressing with the formation of a proliferative phenotype. The risk factors for the development of proliferative changes in the mammary glands in the nodular form of FCB have been determined, which include: burdened heredity in relation to malignant diseases; the presence of two or more nodules (more than 1 cm) in the mammary gland, the age of patients is over 40 years old; the presence of gynecological pathology, especially uterine fibroids; late first pregnancy; multiple abortions (> 3); breast injury; smoking and chronic stress [2]. To increase the efficiency of early diagnosis of proliferative processes in patients with nodular FCB of reproductive

age, a dynamic study of the complex of serum molecular biological factors involved in the pathogenesis of breast cancer development was carried out for the first time by studying the levels of the soluble form of the vascular endothelial adhesion molecule of type 1 sVCAM and the apoptosis inhibitor, soluble Fas-antigen - sFas, activators and growth inhibitors of IGF-II and IGFBP-3, cytokines IL-b and IL-1 r, adipose tissue hormone leptin. For the first time, a comparative study of the levels of molecular biological markers (sVCAM, sFas, IGF-P, IGFBP-3, IL-b, IL-f, leptin) in the blood serum of patients with nodular FRBP, breast cancer, and healthy women of reproductive age was carried out [3, 9].

The author [1] in the work for the first time presents data characterizing the state of hormonal homeostasis and estrogen metabolism in patients with diffuse benign dysplasia of the mammary glands with a predominance of the glandular, cystic, fibrous component and the mixed form. For the first time, a comprehensive comparative assessment of the content of pathogenetically significant hormones in the blood serum was carried out, the general patterns of the formation of the proliferative process in the mammary glands and their features in patients with various clinical and morphological forms of diffuse benign dysplasia of the mammary glands were determined.

As a result of this study, correlations were revealed between the level of secretion of hormones of the pituitary-ovarian, pituitary-adrenal, and pituitary-thyroid systems, differences in the number of coefficients of statistical connection, and the strength of the established interactions was shown. It was established for the first time that the imbalance of proliferative-neutral and proliferative-active estrogen metabolites in patients with diffuse benign dysplasia of the mammary glands is determined by a significant increase in metabolism along the path of formation of 16cc-hydroxestrone with a natural decrease in the 2 / 16a-hydroxyestrone ratio. It has been shown that the most pronounced changes in estrogen metabolism are observed in patients with fibrous dysplasia of the mammary glands [12, 15].

The author [8] for the first time carried out a comparative analysis of the

state of the mammary glands in women with and without gynecological diseases. Risk factors for the development of relapses of benign mammary dysplasia in gynecological patients have been identified. The most significant risk factors for the development of relapses should be considered the gynecological morbidity of patients (uterine fibroids, endometriosis, endometrial hyperplastic processes).

For the first time, on the basis of the results obtained, a scientific substantiation of the development of relapses of benign dysplasia of the mammary glands in women with gynecological diseases was given. The development of relapses of nodular forms of benign mammary dysplasias in gynecological diseases is preceded by an increase in FSH, LH, prolactin by 1.5 times and a decrease in the excretion of progesterone and estradiol by 2 times [16, 17].

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